

## Claims

1. Process for distributing network configuration settings throughout a network comprising a set of devices, including the steps of:

- establishing in at least one device a description of the network environment;
- detecting in said at least one device a request for network parameters issued from a newly connected requesting device;
- starting a first timer with a first period dependent on a predetermined criterion;
- transmitting to said requesting device network settings after the expiration of said first period.

2. Process according to claim 1 wherein the network configuration settings include an Internet Protocol address.

3. Process according to claim 1 or claim 2 wherein the elaboration of said network environment is performed via access to Address Resolution Protocol tables and NSLOOKUP tables available in the network.

4. Process according to any preceding claim wherein said predetermined criterion is related to the experience gathered by said at least one device.

5. Process according to any preceding claim wherein said predetermined criterion is dependent on the nature of the particular device where the process is running.

6. Process for distributing an Internet Protocol (IP) throughout a network including at least one device comprising a network parameter allocation (NPAA) agent performing the steps of:

- detecting a Dynamic Host Control Process (DHCP) request issued by a newly connected requesting device;
- starting a first timer with a first duration  $T_1$ ;
- testing whether said DHCP request received a response from a DHCP server;

- terminating the process in response to the detection of said response within said first duration;
  - starting a second timer with a second duration  $T_2$  which is computed from a set of predetermined criteria and completing said process if an answer to said DHCP request is detected during said second duration  $T_2$ ;
  - computing an IP address after the expiration of said second duration  $T_2$ ;
  - forwarding a DHCP reply containing said computed IP address to said newly connected requesting device.
- 10 7. Process for distributing an IP address in accordance with claim 6 wherein said second timer is disregarded when said device is a router.
8. Process for distributing an IP address in accordance with claim 6 wherein said second duration  $T_2$  is derived from a computation of both the Media Access Control (MAC) parameter of said device and said newly connected requesting device.
- 15 9. Process for distributing an IP address in accordance with claim 6 wherein said second duration  $T_2$  is computed from the time of operation of said device so that the particular device having the longer experience of the network has the lower time of response.
- 20 10. Process for distributing an IP address in accordance with said claim 6 wherein said computing step is based on the use of the IP addresses assigned to the sub network, the Address Resolution Protocol (ARP) and NSLOOKUP information received from the Domain Name Servers (DNS).
- 25 11. Process for distributing an IP address in accordance with claim 6 comprising the step of distributing the reference to an existing Hyper Text Transfer Protocol (HTTP) proxy.
- 30 12. Process for distributing an IP address in accordance with claim 6 comprising the step of distributing the reference of the gateway.

13. Process for distributing an IP address in accordance with claim 6 comprising the step of distributing a booting image to said newly connected requesting device.
14. Apparatus comprising means for performing the steps of anyone of the  
5 preceding claims.
15. Router comprising means for performing the process defined by anyone of the claims 1 to 13.
- 10 16. Printer comprising means for performing the process defined by anyone of the claims 1 to 13.
17. Process for assigning a IP address in a client device having at least one configuration file comprising at least one set of configuration parameters, said  
15 process comprising the steps of:
- generating and transmitting (302) a Dynamic Host Control Protocol (DHCP) request to said network;
  - if no answer is received, testing (310) the existence of one gateway corresponding  
20 to one particular set of parameters among said at least one set of configuration parameters and, if so, loading and applying said particular set of parameters.
18. Process for assigning an IP address in accordance with claim 17 comprising the step of determining (311) a particular context corresponding to the booting of  
25 said device and loading (313) the network configuration settings corresponding to said context.
19. Process for assigning an IP address in accordance to claim 18 wherein said context is determined from the location of the device, as returned by a GPS  
30 receiver.